

AMENDMENTS TO CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

1. - 17. (Canceled)

18. (Currently Amended) A supersonic inlet for use with an aircraft, said supersonic inlet comprising:

an internal duct having an opening for receiving airflow and a throat section, said inlet further comprising one or more external surfaces wherein said one or more
5 | entire external surfaces are ~~substantially~~-aligned with the flow of the aircraft, said opening of said internal duct further comprised of a first and second leading edge, wherein said leading edges are staggered in location; and

said throat section of the inlet further incorporating a shock stability bleed system, wherein a portion of said airflow is removed from said internal duct so that a
10 | shock wave is maintained within said throat section.

19. (Currently Amended) A supersonic inlet for use with an aircraft, said supersonic inlet comprising:

an internal duct having an opening for receiving airflow and a throat section,
5 | said inlet having one or more external surfaces ~~substantially~~-aligned with the airflow of said aircraft, a centerbody positioned within said duct, and having a leading edge, the
| external surfaces being ~~substantially~~-aligned with the airflow of the aircraft from the leading edge to an associated engine;

said opening of said internal duct further comprised of a leading edge, wherein said leading edge of said duct is staggered in location with respect to the leading edge of
10 | the centerbody; and

said throat section of the inlet further includes a shock stability bleed system, wherein a portion of said airflow is removed from said internal duct so that a shock wave is maintained within said throat section.

20. (Currently Amended) The inlet of claim 18 wherein all of the external surfaces are ~~substantially~~ aligned with the airflow of the aircraft.

21. (Currently Amended) The inlet of claim 18 wherein one or more of the external surfaces are ~~substantially~~ aligned with the airflow of the aircraft at all operating conditions.

22. (Previously Presented) The inlet of claim 18 wherein said internal duct comprises one or more movable compression surfaces.

23. (Previously Presented) The inlet of claim 18 wherein said one or more external compression surfaces are fixed in location.

24. (Currently Amended) The inlet of claim 19 wherein all of the external surfaces are ~~substantially~~ aligned with the airflow of the aircraft.

25. (Currently Amended) The inlet of claim 19 wherein one or more of the external surfaces are ~~substantially~~ aligned with the airflow of the aircraft at all operating conditions.

26. (Previously Presented) The inlet of claim 19 wherein said internal duct comprises one or more movable compression surfaces.

27. (Previously Presented) The inlet of claim 19 wherein said one or more external compression surfaces are fixed in location.

28. (Currently Amended) A low boom supersonic inlet for use with an aircraft engine, the supersonic inlet comprising:

- one or more internal surfaces forming an internal duct to provide airflow to the aircraft engine and having an opening for receiving airflow; and
- 5 | one or more external surfaces that are ~~substantially~~ entirely aligned with the flow of air to the inlet whereby the inlet external shock waves that contribute to the sonic boom signature of the aircraft have been substantially reduced.

29. (Previously Presented) The low sonic boom supersonic inlet of claim 28 wherein said internal surfaces provide supersonic compression and are movable into two or more positions.

30. (Previously Presented) The low sonic boom supersonic inlet of claim 28 wherein said internal surfaces extend from the leading edge to the engine entrance, said internal surfaces comprising one or more compression surfaces for providing supersonic compression of the air to the inlet throat and subsonic diffusion of the air to the engine
- 5 entrance.

31. (Previously Presented) The low sonic boom supersonic inlet of claim 28 wherein said internal duct further comprises a throat section having a shock stability bleed system comprised of one or more bleed passageways wherein a portion of said airflow is removed from said internal duct through said one or more bleed passageways
- 5 so that an airflow shock wave is maintained within said throat region.

32. (Previously Presented) The low sonic boom supersonic inlet of claim 28 wherein all of the compression surfaces are located within said internal duct.

33. (Previously Presented) The low sonic boom supersonic inlet of claim 32 wherein excess air not required by the engine is ducted out of the inlet through an overboard bypass system.

34. (Previously Presented) The low sonic boom supersonic inlet of claim 28 wherein said internal duct has a rectangular cross-sectional shape.

35. (Previously Presented) The low sonic boom supersonic inlet of claim 28 wherein said internal duct has a elliptical cross-sectional shape.

36. (Previously Presented) The low sonic boom supersonic inlet of claim 18 wherein said internal duct has a rectangular cross-sectional shape.

37. (Previously Presented) The low sonic boom supersonic inlet of claim 18 wherein said internal duct has a elliptical cross-sectional shape.

38. (Previously Presented) The low sonic boom supersonic inlet of claim 19 wherein said internal duct has a rectangular cross-sectional shape.

39. (Previously Presented) The low sonic boom supersonic inlet of claim 19 wherein said internal duct has a elliptical cross-sectional shape.

40. (Previously Presented) The low sonic boom supersonic inlet of claim 18 wherein said shock stability bleed system further comprises bleed passages having a variable area exit.

41. (Previously Presented) The low sonic boom supersonic inlet of claim 18 wherein said throat section of said inlet further comprises one or more movable internal sidewalls in the throat section for varying the throat area.

42. (Previously Presented) The low sonic boom supersonic inlet of claim 18 wherein the interior surfaces of the internal duct have continuous surfaces from the opening to the exit of the inlet.